

**MODULATION BY COMBINED MULTI-PULSE PER GROUP WITH  
SIMULTANEOUS PHASE AND TIME SHIFT KEYING  
AND METHOD OF USING THE SAME**

**ABSTRACT OF THE DISCLOSURE**

The present invention in one embodiment provides for a propagated signal of (1) a time period divided into a group of time slots each having a unique phase/time position; and (2) multiple pulses distributed among the time slots encoding a data element by such unique phase/time position.